



Role of *Rasayan Churna* in outbreak of Covid -19 as preventive and curative aspect

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ABSTRACT

In last two decade world suffer with three epidemic diseases like SARS-CoV, H1N1 influenza, MERS -CoV and presently the world under a pandemic of Covid-19, out of these SARS-CoV, MERS -CoV and Covid-19 are form the same virus call as corona, which primary present on bats and transferred from animal to human, and then it transfer from human to human mostly by respiratory droplets or in the direct contact with the diseased person, these recurrent infection of corona virus is the burning issue in the word, so to avoid these recurrent infections good habitual behaviour with regular immune booster medicine should be taken which can be used in both normal and symptomatic patient for this *Rasayan churna* is the best drug of choice as it is used for rejuvenation therapy. From literally study from various recourses it is found that *Rasayan churna* have property anti-depressant, anti-xylotic, Immunomodulatory, Anti-diabetes, anti hypertensive, anti-inflammatory, Anti-toxic effects, Anti-arthritis, Anti-cancer effects, Anti-microbial effect, and Anti-oxidant which can be useful in preventive aspect of Covid -19 in all phase like normal individual, also can be used in asymptomatic patients and symptomatic patients, clinical study can be performed for the same to evaluate the result.

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INTRODUCTION

In last two decade number of epidemic viral diseases are observed such as severe acute respiratory syndrome corona virus (SARS-CoV) in time period 2002 to 2003, after that in 2009 H1 N1 influenza spread in

the world, recently in 2012 Middle east respiratory syndrome corona virus (MERS -CoV) was recorded in Saudi Arabia (Casella *et al.*, 2020) and now Covid -19 is become a burning issue in all over the world. On date 20 January 2020, World health organisation (WHO) released their first situation report on Covid-19 that it was spread in 4 countries with 282 confirmed case and it increases to above 3 million confirmed cases in just 3 month which was mentioned in WHO situation report which was released in 29 April 2020 (COVID-2019, 2020). On 11 march 2020 WHO declare Covid -19 as a pandemic diseases (Cucinotta and Vanelli, 2020). In last two decade CoVs are observed as a severe universal health threat as SARS-CoV, MERS -CoV and novel Corona Virus (nCoV) all are caused due to corona virus (CoV) so it is also likely to possible to new outbreak of CoV due to change in climate and ecology and increased interaction between humans and ani-

mal (Chen *et al.*, 2020). So it is important to find out the new therapies or the drugs to treat the diseases and to avoid the diseases. These two aims, to prevent the diseases and to treat the disease on which Ayurveda is based on.

Ayurveda had mentioned several *Rasayan* (rejuvenation) therapy for prevention the pandemic diseases (Kalamkar *et al.*, 2015). Acharya Charak mentioned four factors which are affecting the surrounding which can cause annihilation of communities, they are vitiated *Vayu* (air), *Jala* (water), *Desha* (land) and *Kala* (season), along with this Acharya mentioned another reason which can cause annihilation is unrighteous of the people (Kalamkar *et al.*, 2015). Human are said to the terminal host of the CoV and Bats are called as natural host of the CoV (Hassan *et al.*, 2020) means at first it was transfer to the humans through animals which can be taken as unrighteous of the behaviour people as they eats bats and get infected. Now the diseased is transferred to human to human through droplet infection, Fomites, tables and metals (WHO, 2020). So for the prevention of the diseases we should follow the good habits along with the drug which can act on the symptoms which are commonly found in CoV, that is fever with respiratory tract infection. *Rasayan churna* mentioned by the Acharya Vagbhata can be the best option for rejuvenation therapy in this disease.

Rasayan churna is the herbal formulation of fine powders of *Amalaki* (*Emblica officinalis*), *Guduchi* (*Tinospora cordifolia*), and *Gokshura* (*Tribulus terrestris*.) in equal quantity which should be taken with ghee and honey. In *Ashtang hrudaya*, it is mentioned that *Rasayan churna* along with the ghee and honey useful in *Vrushya* (maintenance of sexual vigor), *Sthiratva* (Stability), *Shant Vikar dukkham* (peacefulness and eradication of diseases), *Samah* (Balance), *Shatam Jivati* (Long life) and restriction in greying of hair (Deole *et al.*, 2011). In this disease the principal of stability, peacefulness and eradication of disease, mental and physical balance and long life is used to prevent the disease.

DRUG REVIEW

Out of Eight branches of Ayurveda *Rasayan* is the branch which primarily deals with the maintenance of the health (Pathak *et al.*, 2011). *Rasayan* can be categorised in to kind of food, herb or activity which confers youthfulness and cures the diseases. If it administrated in proper way it can prevent early aging and keep person young and active in both physical and mental state. *Rasayan churna* is formed the combination of three herbs which

are easily accessible in today era, they are *Amalaki* (*Emblica officinalis*), *Guduchi* (*Tinospora cordifolia*), and *Gokshura* (*Tribulus terrestris*) (Deole *et al.*, 2011). The contents of the *Rasayan churna* and their Ayurvedic pharmacological properties are as follows (Table 1).

DISEASES REVIEW

Etiology

Corona virus is spherical or pleomorphic, single stranded, enveloped RNA and covered with club shaped glycoprotein (Hassan *et al.*, 2020). They are known to root diseases of the respiratory, hepatic, nervous system, and gastrointestinal systems in humans (Chen *et al.*, 2020).

Mode of transmission

Mode of transmission can be of two types animal to human and human to human. As the host of CoV is bat, mostly it is transfer to humans through bats. In humans there are several ways to transfer the disease from, study shows in human to other human transfer by direct contact with the symptomatic person, and it is mostly spread by respiratory droplets through sneezing or coughing, (Cascella *et al.*, 2020). So to prevent the spreading of the disease they are several decision taken by the governments of the different countries among these isolation of the symptomatic persona and lockdown are most common to avoid the direct contact with patients

Clinical pictures

Most common symptom are found in Covid 19 are fever and fatigue, with other symptoms it is divided in to three category. They are Mild, moderate and severe. Out of which research shows 81 % of patients found in mild category having mild fever, sore throat, headache, upper respiratory tract infection with nasal congestion. In moderate category patient present with respiratory symptoms of cough, shortness of breath and tachypnea and in severe category it is changes to acute respiratory distress syndrome (ARDS) along with pneumonia (Cascella *et al.*, 2020).

Treatment

No specific treatment directed for Covid -19 and still no vaccine is invented to prevent the disease, only symptomatic treatment is provided to the present as per their presentation, So to avoid the spreading of the disease, rejuvenation therapy can be used world wide. (Cascella *et al.*, 2020).

Table 1: Ayurvedic pharmacological properties of Rasayan Churna

Sr No	Drug name	Part used	Gun (Properties)	Ras (Taste based on activity)	Virya (Potency)	Vipak (Taste after digestion based on activity)
1	Amalaki (Emblica officinalis)	Fruit	Guru, (Heavy) Ruksha, (dry), Sheeta (cold)	Panchrasa (Alavanrasa), Amlapradhan (other than salty teast with dominance of sour)	Sheeta (cold)	Madhur (sweet)
2	Guduchi (Tinospora cordifolia)	Stem	Laghu, (light), Snigdha(unctuous)	Tikta(bitter), Kashay(astringent)	Ushna (Hot)	Madhura (sweet)
3	Gokshura (Tribulus terrestris)	Fruit and root	Guru (Heavy), Snigdha(unctuous)	Madhur (sweet)	Sheeta (cold)	Madhur (sweet)

DISCUSSION

Rasayan churna is the herbal formulation with the combination of *Amlaki*, *Guduchi*, and *Gokshur churna* in equal quantity, several studies are published on each of these drug along with the its combination. As the Acharya Vaghabat mention it is used in the normal people who are looking for of mental and physical stability in life, peacefulness and eradication of the diseases, mental and physical balance along with the long life (Deole *et al.*, 2011). During this outbreak of Covid -19 each and every person are mostly facing the same problem that they are worried about the onset of diseases to them and lose their peace due to stress generated by over thinking about themselves along with family members not to suffer from the disease. Most of the people are worried about their financial problem as most of the governments are lock down their countries and some countries only fundamental needs are provided by the government, in such condition the drug which having basic property of immunomodulant as well as anti depression should be provided along with which can be beneficial to the complications produced by the diseases, in all these parameters *Rasayan churna* can be best drug to advise to the patient as well as normal people.

Rasayan churn, is formed by the combination of *Amalaki*, (Emblica officinalis), *Guduchi* (Tinospora cordifolia) and *Gokshur* (Tribulus terrestris), the study it have anti depressant and anti-xylotic property (Deole *et al.*, 2011). So this can be the good drug of choice for the reducing the anxiety as well as

to over come the depression of the patient. Along with this combined preparation the individual drug have their own property which is also beneficial in present scenario.

Amalaki (Emblica officinalis) is the high natural source of Vitamin C (Shukla *et al.*, 2009) the research conducted on Vitamin C had good effect on acute respiratory syndrome. Also regular used of vitamin C reduces the duration of the cold, it also have good therapeutic effect of pneumonia, Study also show that it have good effect on physical stress condition (Hemilä and Douglas, 1999). So daily intake of *Amalaki* (Emblica officinalis) can be prevent the repeated respiratory infections. So it can be used in both symptomatic and normal people. *Amalaki*(Emblica officinalis) *churna* also prescribed as an additional food supplementation in dyslipidemic patient (Kavita *et al.*, 2016).

Several study conducted on *Guduchi* (Tinospora cordifolia) which shows it has Immunomodulatory property, Anti-diabetes property, Anti-toxic effects, Anti-arthritis, Anti-cancer effects, Anti-microbial activity Anti-oxidant activity, so it can be helpful in many ways, most of the (Saha and Ghosh, 2012) Covid-19 patients reported with other disease like hypertension, cardiovascular problems, respiratory distress, Diabetes mellitus and cancer (Wang *et al.*, 2020) *Guduchi*(Tinospora cordifolia) is act on such diseases as a preventive and curative purpose. As it is immunomodulant in nature it can also be used in boosting the immunity of the person.

Gokshur (Tribulus terrestris) had a good effect

on cardiac activity as it shows anti hypertensive action (Murthy *et al.*, 2000). Also have anti-inflammatory property (Sudheendran *et al.*, 2017). So it can be used on acute inflammatory condition caused in CoV.

Action of *Rasayan churna* can be studied in different category like normal individual, asymptomatic patient and patient suffering from disease. In Normal individual it can again be divided into types Covid Warriors and Non-covid warrior, In Covid Warriors they have to work in the surrounding of the patients so they are always with mental stress that they can suffer with the diseases. Also most of the warriors work in continuous shift duties which increases the physical stress of the person. A study shows during the outbreak of the Covid-19 the people suffered from depression, anxiety due to high exposure of social media (Gao *et al.*, 2020). So in these people *Rasayan churna* can have good effect to suppress the anxiety and stress also it will help to boost the immunity of the people, In asymptomatic and symptomatic patients it can be administered along with the proved drug as it has the proper anti-inflammatory, anti hypertensive and effective in the management of the respiratory diseases.

As per Ayurved *Rasayan churna* has chief property after combination of all three drugs are *Madhur Ras* (sweet in taste), also have same taste after the complete digestion called as *Madhur Vipak*, having cold potency called as *Shit Virya*. All these entities are related with the *Kapha dosha* (body constituent) which have excellent disease resistance property and along with good body healing capacity and have a long life (Dey and Pahwa, 2014). The *Dravya* (drug) having *Madhur Ras* and *Sheet Virya* have property to satisfy the mind which relieves the physical and mental stress of the person. Daily administration of *Rasayan churna* can bring the enthusiasm, happiness and sense of wellbeing to the people due to predominance of sweet taste in it, which further promotes good mental and physical strength. (Deole *et al.*, 2011). So daily use of *Rasayan churna* can be useful to promote the mental stability and physical health.

CONCLUSION

The effect of *Rasayan churna* mentioned in *Ashtang hrudaya* has a property like it is used in maintenance of sexual vigor (*Vrushya*), it provides stability (*Sthiratva*), it is used in peacefulness and for eradication of diseases (*Shant Vikar dukkham*), it maintains balance (*Samahatva*), also Acharya mentioned that if it is used regularly it can provide long healthy life (*Shatam Jivati*). and restriction in greying of

hair, as per the various study conducted on *Rasayan churna* and its contained we can use it as a best rejuvenation therapy, as it has a property like, antidepressant, anti-xyloctic, Immunomodulatory, Anti-diabetes, anti hypertensive, anti-inflammatory, Antitoxic effects, Anti-arthritis, Anti-cancer effects, Antimicrobial effect, and Anti-oxidant effect. So it should be taken in day to day life during Covid-19 outbreak for the protection of the health and to reduce the stress level in normal individual. And in symptomatic and in asymptomatic patients it is used as immunodulant to boost the immunity, and should perform the clinical trial to evaluate the other effects of the *Rasayan churna*.

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Conflict of Interest

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